State of Michigan (agency name) Evaluation of the Internal Control Structure - Application Controls As of September 30, 20___

Purpose: Departments should use this tool to assist in evaluating information technology (IT) application controls for applications or systems in which the department is the business owner.

Background: The Michigan Department of Information Technology (MDIT) is responsible for assessing the State's general information technology (IT) controls. General IT controls relate to activities that provide for the proper operation of application systems. General controls encompass, strategic planning, business continuity, contingency planning, system development methodology, procedures for documenting, reviewing, testing and approving system changes, and a variety of other control activities.

Departments, as application business owners, are responsible for establishing, maintaining, and monitoring internal controls over specific applications and the environment in which they operate.

Application Specific Controls consist of mechanisms in place over each separate computer system that helps to ensure authorized data is processed completely, accurately, and reliably. Controls may relate to data origin; input, processing, output, and application access controls; audit trails; and documentation.

Application Environment Controls apply to the entire environment in which an application resides, rather than to an individual application. . Application environment controls may include controls related to service level agreements, data storage and backup, data management, and other areas.

(1)	(2)	(3)	(4	4)	(5)	(6)
Optimal Internal Controls	Agency, Division/Office and Staff (Non-DIT) Responsible for IT Process and Related Controls	Internal Control Existence (a)	Effectiv	mance veness	Description/Comments (this column must be completed)	Monitoring (this column must be completed)
	identify the activity and business owner responsible for each IT process (e.g., agency, division, office and/or staff)	Occume Docume	Satisfactory	Ineffective/Inefficient Not Applicable	description of controls, activities, formal policies, procedures, and practices that represent internal controls related to the IT process and whether alternative or compensating controls and plans and time frames exist for addressing deficiencies	description of activities performed to ensure controls in place are working

	Risk Category: Security Control Issues									
Description/Purpose: to evaluate controls over access to d encryption and other means.	<u> </u>						nd monitoring controls	regarding use	er identifies, physical security,	
COBIT Reference: DS-5										
Does management establish and enforce user identities and access rights for the application?										
Has management established a process for issuing, maintaining, and removing user access rights?										
Does management regularly test and monitor security over the application?										
Has management defined possible security incidents/policy violations?										
Has management secured logical and physical security over application documentation (i.e. access restrictions/non-disclosure)?										
Has management established a process to manage the transforming of sensitive information into unreadable/identifiable information and its reverse process in the application?										
Has management established a process to protect the application from viruses, worms, Trojans, logic bombs, spyware, etc. through updated security patches, virus protection software, etc.?										

⁽a) When possible, obtain applicable documentation and/or flowcharts for your future needs/requirements.

(1)	(2)	l	12	3)	1		(4)		(5)	(6)
Optimal Internal Controls	Agency, Division/Office and Staff		Inte			Dor	forma	2000	Description/Comments	Monitoring
Optimal Internal Controls	(Non-DIT) Responsible for IT Process and Related Controls		Con		a)		ectiver		(this column must be completed)	(this column must be completed)
	identify the activity		þ	ace	(p)		ient	o o	description of controls, activities, formal policies, procedures, and	description of activities performed to ensure controls in place are working
	and business owner responsible for each IT process (e.g., agency,	Documented	Not Documented	No Control in Place	Not Applicable (b)	tory	Ineffective/Inefficient	Not Applicable	practices that represent internal controls related to the IT process and	
	division, office and/or staff)	nme	ocnu	itrol	plica	Satisfactory	ve/Ir	Appli	whether alternative or compensating	
		Doc	ot D	Co	ot Ap	Sat	ffecti	Not /	controls and plans and time frames exist for addressing deficiencies	
			Z	No	ž		Ine			
Are sensitive data associated with the application only		1 1		1						
exchanged over secure paths?										
Conclusion for this Section (Include All Weaknesses Ide	ontified)									
Conclusion for this Section (include All Weaknesses Id	entinea)									
	Risk Category: Risk Ass									
Description/Purpose: to evaluate the risk assessment framinformation, applications, systems and their controls.	nework that enables management to u	ise a	stru	uctur	red	proce	ess to	o idei	ntify, analyze, communicate, and respon	d to risks and impacts on data,
COBIT Reference: PO-9	T									
Has management defined or approved risk evaluation criteria for the application?										
Does management assess the risks associated with the application for their likelihood and impact?										
Has management mitigated the identified application risks through avoidance, reduction, sharing, acceptance, or a										
combination of these options to an acceptable level?										
Does management maintain and monitor its efforts to mitigate the identified application risks?										
						il de la companya de				
Conclusion for this Section (Include All Weaknesses Ide	entified)									
	Risk Categ									
Description/Purpose: to evaluate the protection of comput implementing physical security.	ter assets and data through physical so	ecurit	ty m	neas	ure	s, en	viron	ment	tal controls, and access controls by adeq	uately managing facilities and
COBIT Reference: DS-12										
Has management established or approved physical security measures defining the security perimeter,										
authorized access, security zones, location of critical										
equipment, shipping and receiving areas related to the application?										
Is physical security access for the application defined and limited to business needs?										
Is the application and equipment that houses the										
application physically protected with smoke detectors, raised floors, water sensors, etc. from environmental										
factors like smoke/fire, water damage, static electricity,										
food, etc.?				1			1	1		

⁽a) When possible, obtain applicable documentation and/or flowcharts for your future needs/requirements.

State of Michigan (agency name) Biennial Evaluation of the Internal Control Structure - Application Controls as of September 30, 20__

(1)	(2)		(3)			(4)		(5)	(6)
Optimal Internal Controls	Agency, Division/Office and Staff (Non-DIT) Responsible for IT Process and Related Controls		Intern Contr istenc	ol	-	forma ectiver		Description/Comments (this column must be completed)	Monitoring (this column must be completed
	identify the activity and business owner responsible for each IT process (e.g., agency, division, office and/or staff)	Documented	Not Documented	No Control in Place		Ineffective/Inefficient	Not Applicable	description of controls, activities, formal policies, procedures, and practices that represent internal controls related to the IT process and whether alternative or compensating controls and plans and time frames exist for addressing deficiencies	description of activities performed ensure controls in place are work

Conclusion for this Section (Include	All Weaknesses Identified)
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Risk Category: Change Control, Analysis, and Management										
Description/Purpose: to evaluate the controls over changes to applications through management's procedures, assessment/analysis, and tracking of changes.										
COBIT Reference: Al-6	COBIT Reference: AI-6									
Has a process been established to document and track changes to the application?										
Does a procedure exist to ensure that management considers the potential impact to other applications or systems before initiating any changes to the application?										
Has a separate process been established for emergency changes to the application?										

Conclusion for this Section (Include All Weaknesses Identified)

	Risk Category: Internal Control Monitoring									
Description/Purpose: to evaluate the protection and achievement of effectiveness, and documenting and responding to exceptions.	IT objectives, operations, law	s, ar	nd re	egula	ations	throu	ıgh de	defining a systems of controls, monitoring and reporting on internal control		
COBIT Reference: ME-2										
Does management have a process to record control exceptions or violations?										
Has management obtained assurance of internal controls for the application through independent external/internal audit parties?										
Does management review the internal controls of external service providers, who use the application, through TPSO audits or other means?										
Does management take corrective action based on weaknesses identified in the internal control assessments for the application?										

Conclusion for this Section (Include All Weaknesses Identified)

State of Michigan (agency name) Biennial Evaluation of the Internal Control Structure - Application Controls as of September 30, 20__

(1)	(2)		(;	3)			(4)		(5)	(6)
Optimal Internal Controls	Agency, Division/Office and Staff		Inte			Per	forma	nce	Description/Comments	Monitoring
, i	(Non-DIT) Responsible for IT	_	Cor		_,	Effe	ctiver	ness	(this column must be completed)	(this column must be completed)
	Process and Related Controls	E	xister	nce (a	a)		1	1		
			_	ഉ	_		'n		description of controls, activities,	description of activities performed to
	identify the activity and business owner responsible	٥	jec	Jac	9)	>	icie	<u>e</u>	formal policies, procedures, and practices that represent internal	ensure controls in place are working
	for each IT process (e.g., agency,	nte	Jer	n	aple	tor	Jeff	cak	controls related to the IT process and	
	division, office and/or staff)	l e	Į į	<u> </u>	<u>:23</u>	fac	 	ig	whether alternative or compensating	
	arriotori, omeo aria/or otari)	Documented	Š	ntr	dd	Satisfactory	iţ.	¥	controls and plans and time frames	
		۵	Not Documented	No Control in Place	Not Applicable (b)	Š	fec	Not Applicable	exist for addressing deficiencies	
			Z	8	ž		Ineffective/Inefficient			
	Risk Category:	Sei	rvic	ele	eve	l Aa	reer	nent	S	
Description/Purpose: to evaluate the controls ensuring de										and communication, and continuous
monitoring.										•
COBIT Reference: DS-1	<u></u>									
Does management have formal procedures for creating										
service requirements, service definitions, service level										
agreements, operating level agreements, funding sources, etc. of service levels (the stated degree/level of										
performance/processes to be provided) for customers										
and service providers?										
If external parties administer key elements of the										
application, has management defined acceptable levels										
of service for these key elements?										
Does the operating level agreement for the application,										
which specifies the technical processes in terms										
meaningful to the provider, define and explain how										
service levels will be supported? Does management review the service level agreements				-						
related to the application for adequacy?										
	I	1		I I			l	I	L	
Conclusion for this Section (Include All Weaknesses Id	entified)									
	Risk Category: 1	Γhir	d P	artv	Se	ervic	e Co	ontro	ols	
Description/Purpose: to evaluate controls over identification										reements.
COBIT Reference: DS-2										
Has management established procedures to identify and										
define all supplier services or relationships directly										
impacting the application?		_								
Has management identified application risks/threats relating to the supplier's service continuity for the										
application?										
Has management established a process to monitor the		1	H	H						
delivery of service from the supplier for the application?										
						i i				
Conclusion for this Section (Include All Weaknesses Id	entified)									

(1)	(2)		(3	3)			(4)		(5)	(6)		
Optimal Internal Controls	Agency, Division/Office and Staff (Non-DIT) Responsible for IT Process and Related Controls	E	Inter Con xisten	rnal trol	a)		forma ectiven		Description/Comments (this column must be completed)	Monitoring (this column must be completed)		
	identify the activity and business owner responsible for each IT process (e.g., agency, division, office and/or staff)	Documented	Not Documented	No Control in Place	Not Applicable (b)	Satisfactory	Ineffective/Inefficient	Not Applicable	description of controls, activities, formal policies, procedures, and practices that represent internal controls related to the IT process and whether alternative or compensating controls and plans and time frames exist for addressing deficiencies	description of activities performed to ensure controls in place are working		
Risk Category: Data Management Controls												
Description/Purpose: to evaluate management controls of										to back-up, test, store, secure, and		
dispose of data and information. COBIT Reference: DS-11												
Has management established procedures regarding labeling, data backup/copying, retrieval, security requirements, and etc., for data storage and archival for the application?												
Has management established procedures to inventory and manage onsite media related to the application such as hard copy documentation, hard/floppy/optical disks, magnetic tape, cables, etc.?												
Has management established procedures to ensure proper disposal of sensitive data and software for the application, such as shredding, disk erasure, file wipe, etc.?												
Has management implemented increased security, physical access controls and logical controls, for any sensitive data associated with the application?												
Conclusion for this Section (Include All Weaknesses Ide	entified)											
	Risk Category: Busine	ess	Con	ntini	uitv	/ Di	isast	er R	Recovery			
Description/Purpose: to evaluate controls designed to min planning, storing critical back-ups, and testing of contingence COBIT Reference: DS-4	imize interruption or loss of application	n/IT	serv	rices	of c	ritica	al and	key	business functions through managemen	t's training of personnel, contingency		
Does management have a plan to address requirements												
for resiliency, alternative processing, recovery capability, etc. for the application's critical services in the event the application is disrupted?												
Has management established a framework for application continuity that is consistent with the department's business continuity?												
Has management given the critical application's resources priority in the continuity plan?												
Does management have a process to regularly update the application's continuity plan?												
Does management regularly test the application's continuity plan?												

State of Michigan (agency name) Biennial Evaluation of the Internal Control S	Structure - Application Controls as of September 30, 20_
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(1)	(2)		(3	3)			(4)		(5)	(6)
Optimal Internal Controls	Agency, Division/Office and Staff (Non-DIT) Responsible for IT Process and Related Controls	Ex	Inter Con	nal)	Perfo	rmano		Description/Comments (this column must be completed)	Monitoring (this column must be completed)
	identify the activity and business owner responsible for each IT process (e.g., agency, division, office and/or staff)	Documented	Not Documented	No Control in Place	Not Applicable (b)	Satisfactory	Ineffective/Inefficient	Not Applicable	description of controls, activities, formal policies, procedures, and practices that represent internal controls related to the IT process and whether alternative or compensating controls and plans and time frames exist for addressing deficiencies	description of activities performed to ensure controls in place are working
Do personnel receive regular training for their roles and responsibilities with the application's continuity?										
Does management secure the application's continuity plans and distribute them to appropriate users?										
Does management securely store all critical backup media needed for the application's recovery and business continuity offsite?										
Conclusion for this Section (Include All Weaknesses Identified)										
Overall Conclusion of Strengths and Weaknesses	3									
I certify that this evaluation of the <u>Application Controls</u> of the internal control structure for the application defined as (
Material Weaknesses Identified: Yes	No (If yes, attach to this letter a l	ist o	f ma	terial	l we	aknes	sses i	ider	ntified.)	
Activity Level Manager Signature				Dat	e					